

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 03/05/98

Date Received: 02/26/98

Project: Metro Self Monitor, PO# M10207

Date Samples Extracted: 03/03/98

Date Extracts Analyzed: 03/03/98

**RESULTS FROM THE ANALYSIS OF THE WATER SAMPLE
FOR CHROMIUM, COPPER, NICKEL, ZINC
USING METHOD 6010**

**Samples Processed Using Method 3005A
Results Reported as mg/L (ppm)**

<u>Sample ID</u>	<u>Chromium</u>	<u>Copper</u>	<u>Nickel</u>	<u>Zinc</u>
M10207	0.56	0.38	0.47	<0.05
Method Blank	<0.05	<0.05	<0.05	<0.05

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 03/05/98

Date Received: 02/26/98

Project: Metro Self Monitor, PO# M10207

QUALITY ASSURANCE RESULTS FOR TOTAL METALS BY INDUCTIVELY COUPLED PLASMA (ICP) (METHOD 6010)

Laboratory Code: 802118-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
Chromium	mg/L (ppm)	0.56	0.55	2	0-20
Copper	mg/L (ppm)	0.38	0.34	11	0-20
Nickel	mg/L (ppm)	0.47	0.47	0	0-20
Zinc	mg/L (ppm)	<0.05	<0.05	nm	0-20

Laboratory Code: 802118-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	% Recovery MS	% Recovery MSD	Acceptance Criteria	RPD
Chromium	mg/L (ppm)	5	0.56	96	99	80-120	3
Copper	mg/L (ppm)	5	0.38	95	96	80-120	1
Nickel	mg/L (ppm)	10	0.47	95	96	80-120	1
Zinc	mg/L (ppm)	5	<0.05	98	98	80-120	1

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	% Recovery LCS	% Recovery LCSD	Acceptance Criteria	RPD
Chromium	mg/L (ppm)	5	107	105	80-120	2
Copper	mg/L (ppm)	5	112	110	80-120	2
Nickel	mg/L (ppm)	10	106	106	80-120	0
Zinc	mg/L (ppm)	5	106	106	80-120	0

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

PJ# 802118

AI 2/26/98

BRIDGMAN & BRUYA, INC.
 1001 Avenue West
 Seattle, WA 98119-2029
 (206) 255-5282

SAMPLE CHAIN OF CUSTODY

Order Report To: Alaskan Copper Works Contact: Geno Thompson
 Location: 628 Harding St
 City, State, Zip: Seattle WA 98134
 Phone: (206) 382-8775 FAX #: (206) 382-4309 Date: 2-26-98

PROJECT #	PROJECT NAME	PURCHASE ORDER #
7238	metro Self monitor	m 10207
ANALYST (signature)		PROJECT LOCATION
		3200 6th Ave S.
REMARKS		SAMPLE DISPOSAL INFORMATION
		<input type="checkbox"/> Dispose after 30 days <input checked="" type="checkbox"/> Return Samples <input type="checkbox"/> Call for Instructions

Sample #	Date/Time Sampled	Type of Sample	# of Jars	Lab Sample #	Analyses Requested
m 10207	2/26/98 1200	H2O	1		CR Cu Ni Zn

SIGNATURE	PRINT NAME	COMPANY	Date	Time
	Geno Thompson	ACU	2/26/98	1:02pm
	SUE GORMLEY	FBI	2/26/98	1:23pm
Received by:				
Relinquished by:				
Received by:				

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Charlene Jensen, M.S.
Bradley T. Benson, B.S.
Kurt Johnson, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044
e-mail: fbi@isomedia.com

March 5, 1998

DUPLICATE COPY

INVOICE #98ACU0305-1

Accounts Payable
Alaskan Copper Works
628 South Hanford St.
Seattle, WA 98134

**RE: Project Metro Self Monitor, PO# M10207: Results of testing requested
by Gerry Thompson for material submitted on February 26, 1998.**

1 water sample analyzed for
Chromium, Copper, Nickel, and Zinc
using Method 6010 @ \$65 per sample

\$ 65.00

Amount Due

\$ 65.00

FEDERAL TAX ID (b) (6)

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Charlene Jensen, M.S.
Bradley T. Benson, B.S.
Kurt Johnson, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044
e-mail: fbi@isomedia.com

March 5, 1998

Gerry Thompson, Project Manager
Alaskan Copper Works
628 South Hanford St.
Seattle, WA 98134

Dear Mr. Thompson:

Included are the results from the testing of material submitted on February 26, 1998 from your Metro Self Monitor, PO# M10207 project. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Manuel Marti
Project Manager

Enclosures
ACU0305R.DOC